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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,875	10/13/2005	Niki S. Woodhead	20410/0203396-US0	9177

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EXAMINER
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GARCIA, ERNESTO

ART UNIT	PAPER NUMBER
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3679

MAIL DATE	DELIVERY MODE
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05/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/552,875

**Applicant(s)**

WOODHEAD ET AL.

**Examiner**

Ernesto Garcia

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5,7,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/13/05</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election of Species***

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- I. Figure 4
- II. Figure 6

Note that Figures 1-3 and 5 are prior art.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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The claims are deemed to correspond to the species listed above in the following manner:

Claims 4, 6, 9, and 10 correspond to species I.

Claims 5, 7, 11, and 12 correspond to species II.

The following claim(s) are generic: claims 1-3 and 8.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

an assessment of the prior art with respect to the independent claims provides no unity of invention since the "special technical features", i.e., "a band of resilient material having corrugated protrusions" and "a guide portion contiguous with, and extending axially from the band" common in each of the species is known from Blaurock et al., 3,838,928. Applicant should note that the lack of unity is based on a *posteriori* and the special technical features, common to all species, do not define a contribution over the prior.

During a telephone conversation with Mr. Bryan Branch on April 24, 2007 a provisional election was made with oral traverse to prosecute the invention of species I, claims 1 and 5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5, 7, 11, and 12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Note that claims 5, 7, 11, and 12 are directed toward species II since both the ring and the shaft are connected before they are inserted in the housing and the protrusions of the ring are protruding radially inwardly from the band.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Drawings***

Figures 1-3 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to because the bore 4 should not be hatched in Figures 1-6. Further, the use of solid shading for the tolerance ring 1 is not permitted. The interior of the tolerance ring 1 should not be hatched in Figures 2-4. The tolerance ring in Figures 5 and 6 should include a horizontal line at both free ends of the ring to depict a ring. Currently, it appears to show two brackets mounted on the shaft 18. One of the reference characters "20" in Figure 5 should be deleted since a bore only has one edge on a side. Reference character 15b should be deleted since reference character 15a is an annular guide portion and not two guide portions to be designated as 15a and 15b. The same applies to the guide surface 24b and should be deleted.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 4 is objected to because of the following informalities:

regarding claim 4, "A" in line 1 should be --a--. Appropriate correction is required.

For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6, and 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the recitation “, and” in line 6 is tending to define the free end of the guide being wider “and” narrower simultaneously. This is improper since both conditions cannot occur at the same instance. Each condition can only occur in the alternative.

Regarding claims 2-4, 6, and 8-10, these claims depend from claim 1 and therefore are indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Blaurock et al., 3,838,928.

Regarding claim 1, Blaurock et al. disclose, in Figure 7, a tolerance ring comprising a band **142** of resilient material and a guide portion **140**. The band has corrugated protrusions **142** extending radially inwards towards the axis of the band **142**. The guide portion **140** is contiguous with and extends axially from the band **142**. The guide portion **140** comprises at least one guide surface inclined relative to the axis of the band **142**. A free end of the guide portion **140** is wider than the opening **e** of the band **142** when the corrugated protrusions **142** extend radially outwards.

Regarding claim 2, the angle of inclination of the guide surface relative to the axis is constant along the length of the guide surface.

Regarding claims 3 and 8, the guide portion **140** extends from the whole circumference of the band **142**.

Regarding claim 4, Blaurock et al. disclose, in Figure 7, an apparatus comprising a housing **126**, a shaft **128**, and a tolerance ring **124**. The housing **126** has a bore **132**. The ring **124** comprises a band **142** of resilient material and a guide portion **140** (see marked-up attachment). The band has corrugated protrusions **142** extending radially inwards towards the axis of the band **142**. The guide portion **140** is contiguous with and extends axially from the band **142**. The guide portion **140** comprises at least one guide surface inclined relative to the axis of the band **142**. A free end of the guide portion **140** is wider than the opening **e** of the band **142** when the corrugated protrusions **142**



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extend radially outwards. The shaft **128** is received in the band **142** and the protrusions engage the wall of the bore.

Regarding claims 6, 9, and 10, at the outset, it should be noted that in method claims, it is the patentability of the method steps that is to be determined and not the recited structure. Structure not affected in the manipulative sense is given little patentable weight. Accordingly, Blaurock et al. disclose the method comprising:

inserting a tolerance ring **124** in a bore **132** in a housing **126**;

engaging the wall of the bore **132** with radially outward protrusions **142** of the tolerance ring **124**;

inserting an end of a shaft **128** into a guide portion **140** of the tolerance ring **124**;  
and,

moving the shaft **128** along the axis of band into the band so that the band engages the shaft **128**.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EF.

E.G.

April 29, 2007



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
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